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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,626	07/26/2000	William C.Y. Lee	139.136USU1	8528

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GATES & COOPER LLP  
HOWARD HUGHES CENTER  
6701 CENTER DRIVE WEST, SUITE 1050  
LOS ANGELES, CA 90045

EXAMINER

RAMPURIA, SHARAD K

ART UNIT PAPER NUMBER

2617

DATE MAILED: 12/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/625,626

Applicant(s)

LEE ET AL.

Examiner

Sharad Rampuria

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-25 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

I. The Art Unit location of this application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Disposition of the claims***

II. The current office-action is in response to the remarks filed on 10/23/2006.

Accordingly, Claims 11 and 26 are cancelled and Claims 1-10, 12-25, 27-30 are imminent for further assessment as follows:

### ***Claim Rejections - 35 USC § 103***

III. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-10, 12-16, 18-25 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tayloe et al. (USP 5095500) in view of Borrás et al. (USP 5303240).

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Regarding Claim 1, Tayloe disclosed a method for operating a wireless network (abstract), comprising:

(a) Collecting and analyzing information from the wireless network into a collection and analysis system coupled to the wireless network (OMCU; 116; Fig.1; Col.5; 25-39), wherein the information includes location information on mobile transceivers operating within the network; (Col.5; 25-39) and

Tayloe fails to disclosed optimizing the wireless network's operation from a network control system coupled to the wireless network by intelligently steering radio frequency (RF) signal beams in the direction of one or more mobile transceivers using the collected and analyzed information. However, Borrás teaches in an analogous art, that (b) Optimizing the wireless network's operation from a network control system coupled to the wireless network by intelligently steering radio frequency (RF) signal beams in the direction of one or more mobile transceivers using the collected and analyzed information. (e.g. sweeping the directional antenna to maximize the gain; Col.2; 13-24, Col.4; 49-Col.5; 3) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Tayloe including optimizing the wireless network's operation from a network control system coupled to the wireless network by intelligently steering radio frequency (RF) signal beams in the direction of one or more mobile transceivers using the collected and analyzed information in order to offer an enterprise of a directional antenna to increase system gain in a limited direction by reducing the system gain in other directions. The use of a plurality of antennas and/or a means of steering a given number of antennas in addition to measuring signal quality (in a given

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direction) would allow the selection of a particular direction to achieve improved system gain.

Antenna arrays are typically used to steer an antenna beam electronically.

Regarding Claim 3, Tayloe disclosed The method of claim 1, wherein the information further includes one or more types of information selected from a group comprising Hand Off (HO) information, Power information, Measurements, and System Parameters from the wireless network. (col.4: 51-col.5; 5)

Regarding Claim 4, Tayloe disclosed all the particulars of the claim except wherein the information is collected when certain defined thresholds are triggered. However, Borrás teaches in an analogous art, that The method of claim 1, wherein the information is collected when certain defined thresholds are triggered. (e.g. handoff; Col.5: 7-29)

Regarding Claim 5, Tayloe disclosed The method of claim 1, wherein the optimizing step further comprises dynamically allocating radio frequency (RF) signal power in the wireless network based on the collected and analyzed information (Col.5; 1-5).

Regarding Claim 6, Tayloe disclosed The method of claim 5, wherein the dynamically allocating step further comprises dynamically assigning radio frequency (RF) signal power to cells, sectors within cells, and mobile transceivers based on the collected and analyzed information (Col.5; 1-5 & col.6; 9-15).

Regarding Claim 7, Tayloe disclosed all the particulars of the claim except setting dynamic dedicated handoff (HO) thresholds for individual mobile transceivers based on the collected and analyzed information. However, Borrás teaches in an analogous art, that The method of claim 1, wherein the optimizing step further comprises setting dynamic dedicated handoff (HO) thresholds for individual mobile transceivers based on the collected and analyzed information. (Col.5: 7-29)

Regarding Claim 8, Tayloe disclosed all the particulars of the claim except the individual mobile transceivers each have a unique, assigned HO (hand off) threshold. However, Borrás teaches in an analogous art, that The method of claim 7, wherein the individual mobile transceivers each have a unique, assigned HO (hand off) threshold. (Col.5: 7-29)

Regarding Claim 9, Tayloe disclosed all the particulars of the claim except performing handoffs for individual mobile transceivers based on their unique, assigned HO (hand off) threshold and their location. However, Borrás teaches in an analogous art, that The method of claim 8, wherein the optimizing step further comprises performing handoffs for individual mobile transceivers based on their unique, assigned HO (hand off) threshold and their location. (Col.5: 7-29)

Regarding Claim 10, Tayloe disclosed all the particulars of the claim except the performing step comprises performing handoffs for individual mobile transceivers in order to minimize interference levels. However, Borrás teaches in an analogous art, that The method of

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claim 9, wherein the performing step comprises performing handoffs for individual mobile transceivers in order to minimize interference levels. (Col.5: 7-29)

Regarding Claim 12, Tayloe teaches all the particulars of the claim except wherein the intelligently steering step further comprises intelligently forming an RF signal beam based on the collected and analyzed information. However, Borrás teaches in an analogous art, that the method of claim 1, wherein the intelligently steering step further comprises intelligently forming an RF signal beam based on the collected and analyzed information. (e.g. sweeping the directional antenna to maximize the gain; Col.2; 13-24, Col.4; 49-Col.5; 3)

Regarding Claim 13, Tayloe disclosed The method of claim 1, further comprising identifying and resolving problems using the collected and analyzed information. (Col.5: 40-52)

Regarding Claim 14, Tayloe disclosed The method of claim 13, wherein the identifying and resolving step further comprises identifying problems in the wireless network, and correlating the identified problems with the collected and analyzed information. (Col.5: 40-52)

Regarding Claim 15, Tayloe disclosed The method of claim 14, wherein the correlating step further comprises correlating the identified problems with mobile transceiver location information from the collected and analyzed information. (Col.5: 40-52)

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**Claims** 16, 18-25, and 27-30 are the system claim corresponding to method claims 1, 3-10, 12-15 respectively, and rejected under the same rationale set forth in connection with the rejection of claims 1, 3-10, 12-15 respectively, above.

Claims 2, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tayloe and Borrás further in view of Grimes. (USP 5479482).

Regarding Claim 2, the above combinations disclosed all the particulars of the claim except E911 location information. However, Grimes teaches in an analogous art, that the method of claim 1, wherein the location information comprises E911 location information. (Col.3; 39-49) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include E911 location information in order to provide public emergency call location information.

**Claim** 17, is the system claim corresponding to method claim 2, respectively, and rejected under the same rationale set forth in connection with the rejection of claim 2 respectively, above.

#### ***Response to Arguments***

IV. Applicant's arguments with respect to claims 1-10, 12-25, 27-30 has been considered but is moot in view of the new ground(s) of rejection.




***Conclusion***

V. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is (571) 272-7870. The examiner can normally be reached on M-F. (8:30-5 EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

  
Sharad Rampuria  
Patent Examiner  
Art Unit 2617